REMARKS

Claims 1-5, 9-10, 12-19, 21-32, 35 and 37-39 were examined by the Office, and in the Office Action of February 27, 2009 all claims are rejected. With this response claims 1, 9-10, 18-19, 35 and 38 are amended, and claim 39 is cancelled and new claims 40 and 41 are added. All amendments and new claims are fully supported by the specification as originally filed. Support for the amendments can be found at least from paragraphs [0175]-[0176], [0180], [0183], [0185], [0187], [0191], [0197], [0213], [0287]-[0290], [0293]-[0294] and [0297] of Published Application No. 2006/0217990 corresponding to the present application. Applicant respectfully request reconsideration and withdrawal of the rejections in view of the following discussion.

Claim Objections

In section 4, on page 2 of the Office Action, claim 35 is objected to due to informalities. Claim 35 is amended to recite "for storing," and therefore applicant respectfully requests withdrawal of the objection to claim 35.

Claim Rejections Under § 112

In section 6, on page 3 of the Office Action, claims 18-19, 21-26, 32 and 38 are rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement. The Office asserts that the limitation, "mapping said set of code bases into at least one further frequency range out of said plurality of frequency ranges," is not supported by the disclosure. Furthermore, in section 8, on page 3 of the Office Action, claims 18-19, 21-26, 32 and 38 are rejected under 35 U.S.C. § 112, second paragraph as being indefinite since the Office asserts that the limitation identified above is not supported by the disclosure. Claim 18 is amended to address the rejections under § 112, first and second paragraph.

The feature "providing a set of code bases..." has been rewritten to define:

> "providing a set of code bases-basis representing a plurality of coding symbols, each said code base-basis of said set of code bases comprising a pre-defined number of pre-defined frequencies, wherein plurality of coding symbols represents a character and symbol code table employable for coding said meta-information, wherein said set of code bases-basis is defined within a first frequency range, wherein said first frequency range is one frequency range of a

plurality of frequency ranges forming a total frequency range being applicable to said user provided audio information;"

The amendment is supported by the disclosure of the application on page 23, paragraph [0290] in conjunction with paragraph [0287], lines 9 to 21 thereof.

Further, the feature "mapping said set of code bases…" has been removed and replaced with:

"repeating said code basis within at least one further frequency range out of said plurality of frequency ranges;"

The amendment is supported by the disclosure of the application on page 23, paragraph [0294], lines 12 to 16 thereof in conjunction with paragraphs [0290] and [0293]; as well as page 24, paragraph [0297], lines 6 to 10 thereof.

Moreover, the feature "mapping said meta-information…" has been amended to:

"~~mapping~~ coding said meta-information in accordance with said ~~plurality of coding symbols into~~ code basis defined within said first frequency range and repeated within said at least one further frequency range to obtain redundancy;"

The amendment is supported by the disclosure of the application on page 23, paragraph [0287], lines 1 to 5 and lines 9 to 12 thereof in conjunction with paragraph [0288]. Therefore, applicant respectfully submits that claim 18 as amended complies with the written description requirement, and is not indefinite. Claim 38 is amended in a manner similar to claim 18, and therefore for at least the reasons discussed above with respect to claim 18, claim 38 also complies with the written description requirement, and is not indefinite.

Claim Rejections Under § 102

In section 11, on page 4 of the Office Action, claim 39 is rejected under 35 U.S.C. § 102(e) as anticipated by Andrews et al. (U.S. Appl. Publ. No. 2003/0060979). Applicant respectfully submits that the rejection to claim 39 is moot in view of the cancellation of claim 39.

Claim Rejections Under § 103

In section 13, on page 6 of the Office Action, claims 1-5, 9, 12-13, 17, 27-31, 35 and 37 are rejected under 35 U.S.C. § 103(a) as unpatentable over Andrews in view of Brechner et al.

(U.S. Patent No. 6,741,996). Applicant respectfully submits that claim 1 is not disclosed or suggested by the cited references, because the cited reference, alone or in combination, fail to disclose or suggest all of the limitations recited in amended claim 1. Applicant respectfully submits that the cited references at least fail to disclose or suggest "comparing said first time information with each of said second time information to identify matching calendar entries by assigning a membership function to each of said second time information and deriving a membership grade value from each of said membership functions in accordance with said fist period of time, wherein each membership function is a function in time, which rises from zero value at a predetermined moment in time before said start time of a respective calendar entry and becomes zero value at a predefined moment in time after said end time of said respective calendar entry, wherein membership function defines an extended timeframe for each calendar entry" and that "membership grade value defining a measure which allows to estimate a reliability of a timely relatedness for retrieval," as recited in amended claim 1.

Andrews relates in general to a digital scheduler application, which, which estimates on the basis of an appointment time, an appointment location and a current location of the user the expected travel time required by the user to travel from the current location to the appointment location. Further, lead time is determined for the user to prepare prior to travel. A projected start time is then determined from the travel time, the appointment time and the lead time. The appointments is organized in records, each including a lead alarm time, a calendar event, a departure location, an arrival location and an arrival time. The alarm lead time specifies the lead time for the appointment. The projected lead time is calculated using a time difference value contained in the entries of a time difference column. The time difference value indicates a time quantity by which a user was late or early to an appointment. See Andrews paragraphs [0042] and [0044].

Brechner relates to a clip organizer software application, which initially scans a user's hard drive to identify folders containing user files of sound, picture, clip art, video, and other media clips. Metadata comprising keywords derived from the path of each media clip art associated with each of the media clips to facilitate subsequent searching for the files. See Brechner Abstract. For instance, a path for a particular digital photograph file capturing a beach scene was parsed to determine keywords for inclusion in the meta data for the file; a user could subsequently locate that file as well as other media files in the database that relate to the vacation

in Hawaii by searching the collection hierarchy stored in the collection database. See Brechner column 11, lines 11-23.

As defined in the amended claim 1 and described on page 15, paragraph [0183], the user provided information, which is to be provided with meta-information for retrieval by a user, is associated with a first period of time information. This first period of time information is to be compared with available calendar entries in order to identify the matching calendar entries thereof. Each calendar entry of the calendar system as described in the present application comprises a second time information (i.e. a time period) associated with a start time and an end time of the calendar entry. See published application paragraphs [0175]-[0176]; [0185] and [0191].

In order to identify the matching calendar entries, a well-defined membership function is provided. The membership function rises from zero value at a predetermined moment in time before a start time of each calendar entry and the membership function becomes zero value at a predefined moment in time after said end time of each calendar entry. This means that the second time information associated with the calendar entries is provided with a pre- and post-period of time, whereas the first time information associated with the user provided information remains unmodified. The membership function defines an extended timeframe for each calendar entry. See published application paragraphs [0175]-[0176].

The first time information [associated with the user provided information] is compared with each of the second time information [associated with the respective calendar entry] in that the aforementioned membership function is assigned to each of the second time information and a membership grade value is derived from each of the membership functions in accordance with the first period of time. See published application paragraphs [0180]; [0185] and [0191]. Thereby a membership grade value is obtained, which is a reliable and analytic measure of the time/temporal relatedness between the first time information (of the user provided information) in relationship to the second time information (of the respective calendar entry). See published application paragraphs [0187] and [0197].

This means it is not only determined whether the time information associated with the user provided information falls within the second time information associated with one of the calendar entries but also whether the time information associated with the user provided information is close in time to some extend to the second time information associated with one of

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the calendar entries and an reliability value, i.e. the membership grade value, is provided which reflect a measure of the closeness in time. Comparing the first time information [of the user provided information] with each of the second time information [of the calendar entries] to identify matching calendar entries by assigning a membership function [defining an extended timeframe for each calendar entry] to each of said second time information [of the calendar entries] and deriving a membership grade value from each of said membership functions in accordance with said fist period of time is neither described nor suggested by Brechner or any other of the cited prior art.

Furthermore, Brechner does further neither describe nor suggest assigning meta-information obtained from said context information and said membership grade value to said user provided information, said membership grade value defining a measure which allows to estimate a reliability of a timely relatedness for retrieval. Therefore, for at least the reasons discussed above, claim 1 is not disclosed or suggested by the cited references.

Independent claim 35 is amended to contain limitations similar to those recited in claim 1. Therefore, for at least the reasons discussed above in relation to claim 1, claim 35 is not disclosed or suggested by the cited references

The dependent claims rejected above are not disclosed or suggested by the cited references at least in view of their dependencies.

In section 14, on page 25 of the Office Action, claims 10 and 15-16 are rejected under 35 U.S.C. § 103(a) as unpatentable over Andrews in view of Brechner, and in further view of Gupta et al. (U.S. Patent No. 6,484,156). The dependent claims rejected above are not disclosed or suggested by the cited references at least in view of their dependencies.

In section 15, on page 27 of the Office Action, claim 14 is rejected under 35 U.S.C. § 103(a) as unpatentable over Andrews in view of Brechner, and in further view of Asazu (U.S. Appl. Publ. No. 2001/0049691). The dependent claim rejected above is not disclosed or suggested by the cited references at least in view of its dependency.

In section 16, on page 30 of the Office Action, claims 18, 23, 32 and 38 are rejected under 35 U.S.C. § 103(a) as unpatentable over Andrews in view of Tecu et al. (U.S. Appl. Publ.

No. 2004/0034655), and in further view of Oxford (U.S. Patent No. 6,212,199). Applicant respectfully submits that claim 18 is not disclosed or suggested by the cited references, because the cited references, alone or in combination, fail to disclose or suggest all of the limitations recited in claim 18. The cited references at least fail to disclose or suggest a code basis is provided, which represents a plurality of coding symbols, the code basis comprises a pre-defined number of pre-defined frequencies, a plurality of coding symbols represents a character/symbol code table employable for coding meta-information, and the code basis is defined within a first frequency range, which is one frequency range of a plurality of frequency ranges forming a total frequency range being applicable to user provided audio information.

Tecu describes in paragraph [0028] that "at step 116, encoder routine 26 designates metadata 40 to be encoded at each of the selected frequencies 62. For example, each type of metadata 40 to be included in the particular data stream 32 may be encoded at each of a plurality of designated frequencies 62. Thus, for example, subject data 42 may be encoded at a particular frequency 62 and location data 44 may be encoded at another frequency 62." However, the methodology of Tecu requires that "encoder routine 26 may encode metadata 40 at a frequency 62 generally inaudible or imperceptible to human hearing such that the encoded metadata 40 does not detrimentally affect audio data 34 audible to human hearing. For example, metadata 40 may be encoded at a frequency 62 of approximately 20 kHz or greater, thereby rendering the encoded metadata 40 inaudible to human hearing" as described in paragraph [0019] thereof.

The present invention differs from Tecu in that the information encoded within the audio signal is coded redundantly, which allows for coding the embedded information with a high attenuation factor, which is substantially inaudible to a user when the audio signal having embedded information is reproduced. This is obtained in accordance with the claimed subject matter in that code basis is provided, which represents a plurality of coding symbols. The code basis comprises a pre-defined number of pre-defined frequencies. A plurality of coding symbols represents a character/symbol code table employable for coding meta-information. The code basis is defined within a first frequency range, which is one frequency range of a plurality of frequency ranges forming a total frequency range being applicable to user provided audio information.

The code basis is repeated within at least one further frequency range out of the plurality of frequency ranges. The meta-information is coded in accordance with said code basis defined

within said first frequency range and repeated within said at least one further frequency range to obtain redundancy. The user provided audio information and the coded meta-information is combined in that the coded meta-information is embedded into the user provided audio information and the user provided information with the coded meta-information is stored in a history storage in order to establish an information history functionality. Tecu neither describes nor suggests repeating the code basis within at least one further frequency range out of the plurality of frequency ranges.

Furthermore, Tecu neither describes nor suggests coding the meta-information in accordance with the code basis defined within the first frequency range and repeated within the at least one further frequency range to obtain redundancy. Instead, Tecu describes that different information ("subject data 42 may be encoded at a particular frequency 62 and location data 44 may be encoded at another frequency 62") is coded at different frequencies. Therefore, for at least the reasons discussed above, claim 1 is not disclosed or suggested by the cited references.

Claim 38 is amended to include limitations similar to those recited in claim 18, and therefore is not disclosed or suggested by the cited references for at least the reasons discussed above with respect to claim 18.

The claims depending from claims 18 and 38 are also not disclosed or suggested by the cited references at least in view of their dependencies.

In section 17, on page 38 of the Office Action, claims 19, 21-22, 24 and 26 are rejected under 35 U.S.C. § 103(a) as unpatentable over Andrews in view of Tecu, and in further view of Oxford and Tsuruoka (U.S. Patent No. 6,192,056). The dependent claims rejected above are not disclosed or suggested by the cited references at least in view of their dependencies.

In section 18, on page 43 of the Office Action, claim 25 is rejected under 35 U.S.C. § 103(a) as unpatentable over Andrews in view of Tecu, Oxford and Tsuruoka, and in further view of Levy et al. (U.S. Appl. Publ. No. 2002/0031240). The dependent claim rejected above is not disclosed or suggested by the cited references at least in view of their dependencies.

New Claims 40 and 41

New claim 40 and 41 ultimately depend from an independent claim, and therefore are believed to not be disclosed or suggested by the cited references at least in view of their dependencies.

Conclusion

For at least the foregoing reasons, the present application is believed to be in condition for allowance, and such action is earnestly solicited. The undersigned hereby authorizes the Commissioner to charge Deposit Account No. 23-0442 for any fee deficiency required to submit this response.

Respectfully submitted,

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